

**THE OFFICE OF REGULATORY STAFF**

**DIRECT TESTIMONY AND EXHIBITS**

**OF**

**JACQUELINE R. CHERRY**

**AUGUST 13, 2007**



**DOCKET NO. 2007-3-E**

**Duke Energy Carolinas, LLC  
Annual Review of Base Rates for Fuel Costs**

**TESTIMONY OF JACQUELINE R. CHERRY**  
**ON BEHALF OF**  
**THE OFFICE OF REGULATORY STAFF**  
**DOCKET NO. 2007-3-E**

**Q. PLEASE STATE FOR THE RECORD YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

**A.** My name is Jacqueline R. Cherry. My business address is 1441 Main Street, Suite 300, Columbia, South Carolina, 29201. I am employed by the Office of Regulatory Staff ("ORS") in the Audit Department, as an Audit Manager.

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

**A.** I received a B.S. Degree in Business Administration, with a major in Accounting from Johnson C. Smith University in 1976. From February 1979 to October 2004, I was employed as an auditor with the Public Service Commission of South Carolina (the "Commission") and participated in cases involving the regulation of gas, electric, telephone, water and wastewater utilities. In October 2004, I began employment as an Audit Manager with the Office of Regulatory Staff ("ORS").

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

1 **A.** The purpose of my testimony is to present the results of ORS Audit  
2 Staff's examination of Duke Energy Carolinas, LLC ("the Company",  
3 "Duke" or "DEC") books and records pertaining to the Fuel Adjustment  
4 Clause operation for the current review period of July 2006 through  
5 September 2007 (Docket No. 2007-3-E). The findings of the  
6 examination are set forth below and in the exhibits attached to this  
7 testimony. The findings presented in the Report of the Audit Department  
8 were either prepared by me or were prepared under my direction and  
9 supervision.

10 **Q. WHAT WAS THE PURPOSE OF THIS EXAMINATION?**

11 **A.** The purpose of the examination was to determine whether the Company's  
12 accounting practices in computing and applying the monthly Fuel  
13 Adjustment Clause were in compliance with the S.C. Code Ann. §58-27-  
14 865, as amended (2007 S.C. Acts 16). To accomplish this task, ORS  
15 examined the components associated with the operation of the clause.

16 **Q. WHAT WAS THE SCOPE OF ORS'S EXAMINATION?**

17 **A.** ORS Audit Staff examined and traced the monthly fuel adjustment factor  
18 calculations and the fuel recovery balances as recorded in the  
19 Company's books and records. The current fuel review covered the  
20 period July 2006 through September 2007. However, the ORS Audit  
21 Staff did not examine the months of July, August and September 2007

1 because estimated figures for those three months were used by the  
2 Company. The examination consisted of:

- 3 1. Analyzing the Fuel Stock Account – Account # 151
- 4 2. Verifying Receipts to the Fuel Stock Account – Account # 151
- 5 3. Verifying Charges to Nuclear Fuel Expense - Account # 518
- 6 4. Verifying Purchased and Interchange Power Fuel Costs
- 7 5. Verifying KWH Sales
- 8 6. Recalculating the Fuel Adjustment Factors and Verifying the
- 9 Deferred Fuel Costs
- 10 7. Recalculating the True-up for the Over/Under-Recovered Fuel
- 11 Costs
- 12 8. Verifying the Details of the Company's Fuel Costs Including
- 13 Variable Environmental Costs

14 **Q. PLEASE ELABORATE ON ORS AUDIT STAFF'S COMPUTATION OF**  
15 **THE TRUE-UP OF OVER/UNDER-RECOVERED FUEL COSTS.**

16 **A.** ORS Audit Exhibit JRC-7, entitled "S.C. Retail Comparison of Fuel  
17 Revenues & Expenses" provides explanations for ORS's cumulative  
18 over-recovery balance as of June 2007, and as of September 2007. The  
19 cumulative over-recovery amount totaled \$1,632,482 as of June 2007.  
20 ORS then added the projected under-recovery of (\$1,594,797) for the  
21 month of July 2007, the projected under-recovery of (\$155,662) for the  
22 month of August 2007 and the projected over-recovery of \$6,116,009 for  
23 September 2007 to arrive at a cumulative over-recovery of \$5,998,032  
24 as of September 2007. The Company's prefiled testimony in this docket  
25 lists the cumulative over-recovery total as of June 2007 as \$1,937,000

1 (McManeus Exhibit No. 5) and as of September 2007, the cumulative  
2 over-recovery totals \$6,302,000 (McManeus Exhibit No. 5).

3 The difference between the Company's and ORS's cumulative over-  
4 recovery as of actual June 2007 is \$304,518. The difference between  
5 the Company's and ORS's cumulative over-recovery as of estimated  
6 September 2007 totals \$303,968.

7 Effective with the May 3, 2007 passage of the S.C. Base Load Review  
8 Act, the state's fuel clause (S.C. Code Ann. §58-27-865) was amended  
9 to include as components of fuel cost "(a) the cost of ammonia, lime,  
10 limestone, urea, dibasic acid, and catalysts consumed in reducing or  
11 treating emissions, and (b) the cost of emission allowances, as used,  
12 including allowance for SO<sub>2</sub>, NO<sub>x</sub>, mercury and particulates."

13 Accordingly, Audit Exhibit JRC-5 provides the details needed to calculate  
14 the variable environmental costs to be included in the fuel factor.

15 Effective May 3, 2007, SO<sub>2</sub> Emission Allowances were included in a  
16 separate environmental cost factor of the fuel adjustment clause ("FAC").

17 Prior to that date, these costs had been included in the base fuel factor  
18 under the FAC. Audit Exhibit JRC-5 reflects an under-recovery of  
19 (\$6,253,502) in S.C. Environmental Costs that will be spread among the  
20 various customer classes.

21 As stated in the Company's Adjustment for Fuel Costs, fuel costs will be  
22 included in base rates to the extent determined reasonable and proper.

1 **Q. PLEASE EXPLAIN THE CONTENT OF THE AUDIT STAFF EXHIBITS.**

2 **A.** ORS prepared audit exhibits from the Company's books and records  
3 reflecting fuel costs during the review period. Specifically, these exhibits  
4 include the following:

5 Audit Exhibit JRC-1: Coal Cost Statistics

6 Audit Exhibit JRC-2: Received Coal-Cost Per Ton Comparison

7 Audit Exhibit JRC-3: Detail of Nuclear Cost

8 Audit Exhibit JRC-4: Total Burned Cost (Fossil and Nuclear)

9 Audit Exhibit JRC-5: Details of Environmental Costs

10 Audit Exhibit JRC-6: Cost of Fuel

11 Audit Exhibit JRC-7: S.C. Retail Comparison of Fuel Revenues &  
12 Expenses

13 **Q. WOULD YOU PLEASE EXPLAIN FOOTNOTE (1) TO AUDIT EXHIBIT**  
14 **JRC-7?**

15 **A.** Yes. Footnote (1) addresses the cumulative over-recovery balance  
16 brought forward from June 2006 of \$6,984,672. As reflected on this  
17 exhibit, Duke's per books over-recovery balance of \$10,861,289 as of  
18 6/06 and a 9/06 under-recovery adjustment of (\$3,876,617) results in the  
19 same cumulative over-recovery balance as ORS from June 2006. The  
20 9/06 under-recovery adjustment of (\$3,876,617) is a true-up adjustment  
21 that reflects the effect on the cumulative balance of the Deferred  
22 Account for additional Purchased Power Costs based on the S.C. Fuel

1 Statute. Duke's figures are reflected on a rounded basis for testimony  
2 purposes (McManeus Exhibit No. 5).

3 **Q. DID YOU NOTE ANY DIFFERENCES BETWEEN ORS'S AND THE**  
4 **COMPANY'S CALCULATION OF THE OVER-COLLECTION?**

5 **A.** Yes, I did. Each of the differences are identified and described in the  
6 footnotes (2) through (7) of the Audit Exhibit JRC-7. Based on ORS's  
7 examination of the actual months of the review period, these footnotes  
8 explain ORS's proposed adjustments, as follows:

9 Footnote (2) – The S.C. Base Load Review Act became effective on May  
10 3, 2007. Effective May 3, 2007, a separate Environmental base cost  
11 factor must be calculated for variable environmental costs. Accordingly,  
12 SO2 Emission Allowance Expenses are shown with other Environmental  
13 Costs rather than with Fuel Base Factor cost components. In  
14 accordance with the revised statute, ORS reflected the first two (2) days  
15 of SO2 Emission Allowance costs for the month of May with the Base  
16 Fuel Factor calculation and the remaining twenty-nine (29) days with the  
17 Environmental Cost Base Factor. This differs from Duke based on their  
18 implementation date of May 4, 2007, for the change. Duke used three (3)  
19 days for SO2 Emission Allowance costs with the Base Fuel Factor  
20 calculation and twenty-eight (28) days for the Environmental Cost Base  
21 Factor.

1 Also, this footnote addresses the details of environmental costs,  
2 specifically Reagent Costs, as described in Audit Exhibit JRC-5. ORS  
3 made several adjustments to these costs in that exhibit. Adjustments  
4 were made in May and June 2007 to correct over-stated Sales & Use  
5 Taxes applied to the reagents, to exclude an invoice that was included  
6 already in the cost calculations, and to reclassify an invoice that was  
7 categorized incorrectly (no cost change on that correction).

8 **Q. PLEASE EXPLAIN THE CORRECTIONS FOR FOOTNOTE (3).**

9 **A.** Footnote (3) reflects ORS revised Purchased Power figures for July  
10 2006 through June 2007 and the resultant over/under-recovery monthly  
11 deferred fuel amounts for that period in conformity with S.C. Code Ann.  
12 §58-27-865. This statute addresses "fuel costs related to purchased  
13 power." Subsection (A)(2)(b) of this statute states that the total delivered  
14 cost of economy purchases, including (but not limited to) transmission  
15 charges, are included in Purchased Power Costs if those types of  
16 purchases are "less than the purchasing utility's avoided variable costs  
17 for the generation of an equivalent quantity of electric power." DEC  
18 reflects its Purchased Power figures that contain purchases with non-  
19 identifiable fuel costs on a N.C. Fuel Clause basis, which uses a  
20 percentage-computed fuel proxy. Identifiable fuel costs are recorded as  
21 invoiced or as documented. In order to comply with the S.C. Statute,  
22 DEC adjusted its Purchased Power Costs for the review period to reflect



1 the purchase costs allowable under the S.C. Fuel Adjustment Clause.  
2 Therefore, after DEC applied this statute to its economic purchases,  
3 DEC's adjustment would have increased its Purchased Power Costs of  
4 \$59,460,512 for the review period, on a total system--native load basis  
5 by \$26,214,099, which results in "as adjusted" Purchased Power Costs  
6 of \$85,674,611. However, after ORS applied this statute to the  
7 examined economic purchases along with the applicable avoided costs,  
8 ORS had several adjustments which resulted in a difference from DEC's  
9 adjustment by a reduction of (\$302,719) on a total system--native load  
10 basis, and produced an "as adjusted" Purchased Power Costs total of  
11 \$85,371,892. This figure reflects the usage of an avoided cost as a  
12 lesser price, at that point in time, over a purchase price. The  
13 adjustments, for July and August 2006 which totaled (\$299,492), were  
14 based on corrections from revised native load info applicable to  
15 purchases using the S.C. Avoided Cost Fuel Proxy. Also, for July 2006,  
16 ORS reduced the computed purchases applicable to the S.C. Fuel Proxy  
17 by (\$3,227) for a miscalculation in costs.

18 **Q. PLEASE EXPLAIN THE CORRECTIONS AND ADJUSTMENTS FOR**  
19 **FOOTNOTE (4).**

20 **A.** Footnote (4) had several corrections and an adjustment, based on the  
21 amended fuel statute, to Intersystem Sales. The corrections which  
22 consisted of Footnotes (4a) through (4d) are as follows: (4a) and (4c)

1        dealt with Fuel in Transmission Losses. For August 2006, DEC did not  
2        update its Transmission Losses for revised information. This error  
3        affected Intersystem Sales since Fuel in Transmission Losses are  
4        included in the Sales calculations. The correction was a reduction to  
5        Sales of (\$38,916). For April 2007 thru June 2007, DEC calculated the  
6        Emission Allowances associated with Fuel in Transmission Losses  
7        incorrectly. The correction was a reduction to Sales of (\$909,615). (4b)  
8        For March 2007 thru June 2007, DEC included some Nantahala Power  
9        & Light Company ("NP&L") Intersystem Sales that should have been  
10       excluded. The applicable KWH's were correctly excluded but the dollars  
11       were not. The correction was a reduction to Sales for (\$429,938).  
12       Footnote (4d) dealt with an adjustment to Sales due to the amended fuel  
13       statute. Since there are SO2 Emission Allowances included in  
14       Intersystem Sales, any allowances as of May 3, 2007 were computed in  
15       the Environmental Cost Factor. This adjustment reflects the monetary  
16       difference between ORS's and DEC's calculation for May 2007,  
17       excluding 29 days versus 28 days, respectively, of allowances from the  
18       Base Fuel Factor computation. The difference for one day is an  
19       increase in the amount to be removed from Intersystem Sales of  
20       \$13,927.

21 **Q. PLEASE EXPLAIN THE CORRECTIONS FOR FOOTNOTE (5).**

1 **A.** Footnote (5) reflects a correction for May 2007 for a miscalculation of a  
2 portion of MWH's applicable to Intersystem Sales that are reflected as a  
3 reduction to Total System Sales. The error of 40 MWH's resulted in an  
4 increase to System Sales.

5 **Q. WHAT EFFECT DID THE EXCLUSION OF THE SO2 EMISSION**  
6 **ALLOWANCES HAVE ON THE CURRENT REVIEW PERIOD'S BASE**  
7 **FUEL FACTOR?**

8 **A.** Per Duke, the effect of the exclusion of the SO2 Emission Allowances,  
9 from expenses and off-system sales, on the current review period's  
10 1.7760 ¢/KWH (Billed) Base Fuel Factor increases the factor to 1.8187  
11 ¢/KWH. This 1.8187 ¢/KWH reflects what the current factor would be  
12 without the net Emission Allowances portion in off-system sales. This  
13 produces a decrement applicable to these allowances of 0.0427 ¢/KWH.  
14 The only difference that ORS has on this issue is that for May 2007,  
15 ORS used for 29 days to calculate the base fuel factor and Duke used  
16 28 days. Therefore, for May 2007 ORS used a base fuel factor of  
17 1.8159 ¢/KWH and Duke used 1.8146 ¢/KWH.

18 **Q. DID THE COMPANY MAKE ANY ADJUSTMENTS OR TRUE-UPS**  
19 **DURING THE ACTUAL REVIEW PERIOD?**

20 **A.** Yes. Two of the adjustments and/or true-ups made by the Company  
21 during the actual review period are described separately in ORS

1 footnotes (1) and (7) to Audit Exhibit JRC-7. ORS footnote (1) was  
2 discussed earlier in my testimony.

3 **Q. PLEASE EXPLAIN FOOTNOTE (7) TO ORS AUDIT EXHIBIT JRC-7.**

4 **A.** Footnote (7) explains that in March 2007, DEC booked a true-up  
5 adjustment to the cumulative balance in the Deferred Fuel Account  
6 (Account No. 456.53). The over-recovery true-up adjustment per book  
7 entry of \$1,517 was the result of a correction of an error in the January  
8 2007 S.C. KWH Sales. The original over-recovery booked January 2007  
9 entry was reduced based on the correction. The adjusting entry should  
10 have been an under-recovery entry. Therefore, ORS's adjustment was  
11 an under-recovery entry of (\$3,034) for March 2007.

12 **Q. ARE THERE ANY OTHER ISSUES THAT YOU WOULD LIKE TO**  
13 **ADDRESS?**

14 **A.** Yes. Duke had an additional adjustment entry which was reflected in  
15 January 2007 as an adjustment to the Deferred Fuel Account. In the last  
16 fuel review period (PSC Docket No. 2006-3-E), Duke had begun to issue  
17 to its S.C. customers, through customers' bills (i.e., applied to S.C. KWH  
18 Sales), a decrement that was approved by the S.C. PSC in PSC Docket  
19 No. 2005-3-E. The decrement was based on excess accumulated  
20 deferred income taxes booked by the Company in previous years. The  
21 S.C. portion of these funds, called the S.C. Deferred Tax Liability  
22 "Giveback", totaled \$38,738,998 and was distributed from October 2005

1 through September 2006. After September 2006, a balance remained of  
2 \$870,740 (\$866,926 before the 1.0044 tax factor). The Company  
3 credited this remaining balance to the S.C. customers per this adjusting  
4 per book entry in January 2007 (in Account No. 232.08—Accounts  
5 Payable-Unbilled Fuel Revenue-S.C.).

6 **Q. WHAT WAS THE RESULT OF THE ORS AUDIT DEPARTMENT'S**  
7 **EXAMINATION?**

8 **A.** Based on the ORS Audit Staff's examination of the Company's books  
9 and records, and its operation of the fuel cost recovery mechanism, the  
10 ORS Audit Department is of the opinion that, subject to the adjustments  
11 presented in Footnotes (1) through (7), the Company's books and  
12 records accurately reflect the fuel costs incurred by the Company in  
13 accordance with previous Commission orders and with S.C. Code Ann.  
14 §58-27-865.

15 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

16 **A.** Yes, it does.

**REPORT OF THE AUDIT DEPARTMENT  
THE OFFICE OF REGULATORY STAFF**

**DOCKET NO. 2007-3-E**

**DUKE ENERGY CAROLINAS, LLC**

REPORT OF THE AUDIT DEPARTMENT

THE OFFICE OF REGULATORY STAFF

DOCKET NO. 2007-3-E

DUKE ENERGY CAROLINAS, LLC

ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS

REVIEW PERIOD: JULY 1, 2006 – JUNE 30, 2007 (ACTUAL)  
JULY 1, 2007 – SEPTEMBER 30, 2007 (ESTIMATED)

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Note: All of the ORS Audit Exhibits were prepared by the ORS Audit Staff.

**REPORT OF THE AUDIT DEPARTMENT**  
**DOCKET NO. 2007-3-E**  
**DUKE ENERGY CAROLINAS, LLC**  
**ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS**

**ANALYSIS**

The Office of Regulatory Staff's (ORS) Audit Department has made an examination of the books and records of Duke Energy Carolinas, LLC ("the Company" or "DEC") pursuant to the requirements under Docket No. 2007-3-E and S.C. Code Ann. §58-27-865, that periodic hearings be conducted before the Commission concerning the Adjustment of Base Rates for Fuel Costs.

DEC's Retail Fuel Adjustment Clause covers the period of June 2006 through September 2007. However, the ORS Audit Staff did not examine the months from July, August, and September 2007 because the amounts of over/under-recovery for July 2007, August 2007 and September 2007 were estimated by the Company for the purpose of adjusting base rates effective October 1, 2007. The estimates for these three months will be subject to true-up at the Company's next hearing.

The ORS Audit Department's examination consisted of the following:

**1. ANALYZING THE FUEL STOCK ACCOUNT - ACCOUNT # 151**



ORS's analysis of the Fuel Stock Account consisted of tracing receipts to the fuel management system and issues from the fuel management system to the General Ledger, reviewing monthly fuel charges originating in fuel accounting, and ensuring that only proper charges are entered in the Company's computation of fuel costs for purposes of adjusting base rates for fuel costs.

## **2. VERIFYING RECEIPTS TO THE FUEL STOCK ACCOUNT-- ACCOUNT #151**

ORS's testing of coal receipts to the Fuel Stock Account consisted of randomly selecting transactions and tracing each of these randomly selected transactions to a waybill or truck bill, purchase order, a freight voucher and the fuel management system payment voucher for documentation purposes. It also consisted of recalculating the transactions to insure mathematical accuracy.

## **3. VERIFYING CHARGES TO NUCLEAR FUEL EXPENSE - ACCOUNT # 518**

ORS traced the expense amounts for nuclear fuel to the books and records for the period July 2006 through June 2007 to verify the accuracy of the expenses to fuel amortization schedules.

## **4. VERIFYING PURCHASED AND INTERCHANGE POWER FUEL COSTS**

ORS performed an examination of the Company's purchased and interchange power amounts used in the Fuel Adjustment Clause (FAC) for the period July 2006 through June 2007.

ORS obtained the detail of the purchases and sales made by DEC to and from other electric utilities. ORS verified the amounts that are being used in computing total fuel costs for each month. These details allowed ORS to identify fuel costs that are being passed through the clause in computing the factor above or below the base for each period. See ORS's Exhibit JRC-6 for details.

ORS revised Purchased Power figures for July 2006 through June 2007 and the resultant over/under-recovery monthly deferred fuel amounts for July 2006 through June 2007 to reflect calculations which conform with S.C. Code Ann. §58-27-865. This statute addresses "fuel costs related to purchased power." Subsection (A)(2)(b) of this statute states that the total delivered cost of economy purchases, including (but not limited to) transmission charges, are included in Purchased Power Costs if those types of purchases are "less than the purchasing utility's avoided variable costs for the generation of an equivalent quantity of electric power." DEC reflects its Purchased Power figures that contain purchases with non-identifiable fuel costs on a N.C. Fuel Clause basis, which uses a percentage-computed fuel proxy. Identifiable fuel costs are recorded as invoiced or as documented. In order to comply with the S.C. Statute, DEC adjusted its Purchased Power Costs for the review period to reflect the purchase costs allowable under the S.C. Fuel Adjustment Clause. Therefore, after DEC applied this statute to its economic purchases, DEC's adjustment would have increased its Purchased Power Costs of \$59,460,512 for the review period, on a total system--native load basis by \$26,214,099, which results in "as adjusted" Purchased Power Costs of \$85,674,611. However, after ORS applied this statute to the examined economic purchases along with the applicable avoided costs,

ORS had several adjustments which resulted in a difference from DEC's adjustment by a reduction of (\$302,719) on a total system—native load basis, and produced an “as adjusted” Purchased Power Costs total of \$85,371,892. This figure reflects the usage of an avoided cost as a lesser price, at that point in time, over a purchase price. ORS's adjustments are explained in detail in Audit Exhibit JRC-7.

ORS traced the sales and purchases transactions for July 2006 through June 2007 to the Company's sales and purchases monthly reports and, on a sample basis, traced to monthly invoices. ORS recomputed the sales and purchases.

#### **5. VERIFYING KWH SALES**

ORS verified total system sales, as filed in the monthly fuel factor computation, for the months of July 2006 through June 2007. This monthly figure was then used to determine the fuel cost per KWH sold.

#### **6. RECALCULATING THE FUEL ADJUSTMENT FACTORS AND VERIFYING THE DEFERRED FUEL COSTS**

ORS recalculated the Fuel Costs Adjustment Factors for the months of July 2006 through June 2007 utilizing information obtained from the Company's records.

With reference to fuel cost, ORS verified the Total Fuel Costs for the months of July 2006 through June 2007 to the Company's books and records.

In recalculating the monthly factors, ORS divided the Total Cost of Fuel Burned by Total System Sales to arrive at fuel costs per KWH sales. The base fuel cost per KWH,

included in the base rates, is then subtracted from the fuel cost per KWH sales. The resulting figure represents the fuel cost adjustment above or below base per KWH sales. The South Carolina Retail Jurisdictional KWH deferrals were checked against the Company's records. The actual Deferred Fuel Costs for each month was verified to the Company's books and records.

## **7. RECALCULATING THE TRUE-UP FOR THE OVER/UNDER-RECOVERED FUEL COSTS**

ORS analyzed the cumulative over-recovery of fuel costs that the Company had incurred for the period July 2006 through June 2007 totaling \$1,632,482. ORS added the projected under-recovery of (\$1,594,797) for the month of July 2007, the projected under-recovery of (\$155,662) for the month of August 2007 and the projected over-recovery of \$6,116,009 for the month of September 2007 to arrive at a cumulative over-recovery of \$5,998,032 as of September 2007. The Company's cumulative over-recovery, per McManeus Exhibit No. 5, as of June 2007 totals \$1,937,000 and as of September 2007, the cumulative over-recovery totals \$6,302,000. The difference between the Company's and ORS's cumulative over-recovery as of actual June 2007 is \$304,518. The difference between the Company's and ORS's cumulative over-recovery as of estimated September 2007 totals \$303,968. Audit Exhibit JRC-7, S.C. Retail Comparison of Fuel Revenues and Expenses, consisting of 5 pages, provides the explanation for any cumulative over-recovery difference as of September 2007.

For the purpose of determining the base cost of fuel in base rates effective October 1,

2007, and based on the audit conducted in accordance with the Commission's guidelines, ORS calculated the over-recovery of \$5,998,032 as of estimated September 2007.

Effective as of May 3, 2007, the S.C. Base Load Review Act amended the fuel statute's S.C. Code Ann. §58-27-865 to include the separate calculation of base factor components based on variable environmental costs assigned specifically to customer classes. Per the amended statute, the variable environmental costs include "(a) the cost of ammonia, lime, limestone, urea, dibasic acid, and catalysts consumed in reducing or treating emissions, and (b) the cost of emission allowances, as used, including allowance for SO<sub>2</sub>, NO<sub>x</sub>, mercury and particulates." Therefore, Audit Exhibit JRC-5 provides the details necessary to use towards the calculation of the separate variable environmental costs base factors. As stated in the Company's S.C. Retail Adjustment for Fuel Costs Rider, fuel costs will be included in base rates to the extent determined reasonable and proper.

## **8. VERIFYING THE DETAILS OF THE COMPANY'S FUEL COSTS**

ORS prepared exhibits based upon information obtained from DEC's books and records reflecting coal costs during the review period. Specifically, these exhibits are as follows: Audit Exhibit JRC-1, titled Coal Cost Statistics, provides a detailed analysis of spot and contract coal for the twelve (12) months ended June 2007. Additionally, the Weighted Average of Coal Received is reflected in Audit Exhibit JRC-1 for the twelve-month period. Total costs for the twelve-month period were divided by the total tons for the twelve-month period in arriving at the average costs per ton received of \$67.47.

Audit Exhibit JRC-2, titled Received Coal-Cost Per Ton Comparison, reflects the overall cost per ton of coal by month for the three major electric utilities regulated by this Commission.

## **EXHIBITS**

Exhibits relative to this proceeding are identified as follows:

### **AUDIT EXHIBIT JRC-1: COAL COST STATISTICS (AND WEIGHTED AVERAGE OF COAL RECEIVED)**

In Audit Exhibit JRC-1, titled Coal Cost Statistics, ORS compares spot and contract coal received for the period July 2006 through June 2007. The comparison is made in the following five (5) areas:

- (1) Tons Received
- (2) Percentage of Total Tons Received
- (3) Total Received Cost
- (4) Received Cost Per Ton
- (5) Cost Per MBTU

This exhibit also reflects the total spot and contract tons received during the period July 2006 through June 2007. ORS has taken the total received cost for the twelve (12) months and divided this by the total tons for the twelve (12) months in arriving at a Weighted Average Cost per ton for the twelve (12)-month period.

## **AUDIT EXHIBIT JRC-2: RECEIVED COAL-COST PER TON COMPARISON**

This audit exhibit reflects the received cost per ton for coal for each month from July 2006 through June 2007 for DEC, Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. and South Carolina Electric & Gas Company. ORS has shown, for comparison purposes, the invoice cost per ton, freight cost per ton, total cost per ton and the cost per MBTU.

## **AUDIT EXHIBIT JRC-3: DETAIL OF NUCLEAR COST**

In Audit Exhibit JRC-3, ORS has shown in detail, the two components in total nuclear costs. These components are as follows:

- (1) Burn-up Cost
- (2) Disposal Cost

## **AUDIT EXHIBIT JRC-4: TOTAL BURNED COST (FOSSIL AND NUCLEAR)**

This audit exhibit reflects the per book cost of burned fuel used for generation for the period July 2006 through June 2007. The burned cost of each class of fuel is shown separately. These costs include emission allowance expenses and as of May 3, 2007, other variable environmental costs as described in §58-27-865 (A)(1), as amended (2007 S.C. Acts 16).

## **AUDIT EXHIBIT JRC-5: DETAILS OF ENVIRONMENTAL COSTS**

Shown in this audit exhibit are the details on the variable environmental costs that are covered in §58-27-865 (A)(1), as amended (2007 S.C. Acts 16). Since SO<sub>2</sub> Emission

Allowances were included in these costs as of May 3, 2007, this exhibit also explains the treatment of this cost before and after the enactment of this amended fuel statute. Also, this exhibit calculates the S.C. jurisdictional portion of the environmental costs that will be used towards the computation of the separate variable environmental costs base factors. Since the SO2 Emission Allowances had a portion of the current review period's base fuel factor, that portion (which was a decrement) had to be included, as of May 3, 2007, in the computation for the separate variable environmental costs base factors by customer class. The exhibit reflects an under-recovery of (\$6,253,502) in S.C. Environmental Costs that will be spread among the various customer classes.

#### **AUDIT EXHIBIT JRC-6: COST OF FUEL**

In Audit Exhibit JRC-6, ORS has computed the total fuel cost applicable to the factor computation. There are three (3) components used in arriving at this cost. These components are as follows:

- (1) Cost of Fuel Burned
- (2) Purchased and Interchange Power Fuel Cost
- (3) Fuel Cost Recovered from Intersystem Sales

Cost of Fuel Burned --- This amount is the burned cost of all fossil and nuclear fuel burned during the period. The costs associated with emission allowances and the other variable environmental costs are also reflected. A detail breakdown of coal, oil, gas, emission allowances/environmental costs and nuclear fuel can be seen in Audit Exhibit JRC-4.

Purchase and Interchange Power Fuel Cost --- This amount is the monthly cost of kilowatt



hours received by Duke from other electric utilities or power marketers.

Fuel Cost Recovered from Intersystem Sales --- This amount is the fuel-related cost of KWH's sold during the period to another electric utility and /or power marketer.

Total fuel cost applicable to the factor is computed by adding the cost of fuel burned to purchased and interchange power fuel cost. This amount is then reduced by fuel associated with intersystem sales.

#### **AUDIT EXHIBIT JRC-7: S.C. RETAIL COMPARISON OF FUEL REVENUES AND EXPENSES**

Shown in this audit exhibit are the actual costs for July 2006 through June 2007 and the estimated fuel costs for July, August and September 2007.

Duke Energy Carolinas  
Coal Cost Statistics  
July 2006 - June 2007  
Docket No. 2007-3-E

Spot					
<u>Month</u>	<u>Tons Received</u>	<u>Percentage of Total Tons Received</u>	<u>Total Received Cost</u>	<u>Received Cost Per Ton</u>	<u>Cost Per MBTU</u>
	Tons	%	\$	\$	\$
Jul-06	40,896.85	3.73%	2,998,473.61	73.32	2.9745
Aug-06	198,517.88	12.04%	13,098,801.62	65.98	2.7097
Sep-06	254,804.68	15.51%	14,862,867.84	58.33	2.3791
Oct-06	189,970.02	10.26%	13,097,704.67	68.95	2.8218
Nov-06	163,323.10	9.22%	12,261,041.94	75.07	3.0893
Dec-06	69,793.78	3.96%	4,717,057.16	67.59	2.8734
Jan-07	133,908.08	7.35%	8,296,500.14	61.96	2.6040
Feb-07	51,653.15	3.30%	3,359,508.10	65.04	2.6674
Mar-07	122,384.78	6.95%	7,706,599.78	62.97	2.5366
Apr-07	28,709.06	1.90%	1,701,869.59	59.28	2.4763
May-07	53,595.78	3.31%	2,893,737.20	53.99	2.2412
Jun-07	30,301.74	2.02%	1,932,348.76	63.77	2.6273
Totals (7/06- 6/07)	1,337,858.90		86,926,510.41		

Contract					
<u>Month</u>	<u>Tons Received</u>	<u>Percentage of Total Tons Received</u>	<u>Total Received Cost</u>	<u>Received Cost Per Ton</u>	<u>Cost Per MBTU</u>
	Tons	%	\$	\$	\$
Jul-06	1,056,596.28	96.27%	77,794,871.17	73.63	3.0558
Aug-06	1,450,108.62	87.96%	97,340,801.70	67.13	2.7851
Sep-06	1,387,905.84	84.49%	93,409,726.71	67.30	2.7915
Oct-06	1,661,186.51	89.74%	116,015,061.68	69.84	2.8670
Nov-06	1,608,162.89	90.78%	113,317,488.88	70.46	2.8881
Dec-06	1,694,204.86	96.04%	120,010,847.36	70.84	2.8665
Jan-07	1,687,807.96	92.65%	112,896,942.97	66.89	2.7025
Feb-07	1,511,509.89	96.70%	97,629,493.32	64.59	2.6303
Mar-07	1,639,433.37	93.05%	110,700,999.75	67.52	2.7261
Apr-07	1,479,460.46	98.10%	93,463,510.17	63.17	2.5300
May-07	1,564,411.41	96.69%	102,559,840.18	65.56	2.6215
Jun-07	1,469,629.06	97.98%	96,814,060.05	65.88	2.6673
Totals (7/06- 6/07)	18,210,417.15		1,231,953,643.94		

Duke Energy Carolinas  
Coal Cost Statistics  
July 2006 - June 2007  
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Combined					
<u>Month</u>	<u>Tons Received</u>	<u>Percentage of Total Tons Received</u>	<u>Total Received Cost</u>	<u>Received Cost Per Ton</u>	<u>Cost Per MBTU</u>
	Tons	%	\$	\$	\$
Jul-06	1,097,493.13	100.00%	80,793,344.78	73.61	3.0527
Aug-06	1,648,626.50	100.00%	110,439,603.32	66.99	2.7759
Sep-06	1,642,710.52	100.00%	108,272,594.55	65.91	2.7266
Oct-06	1,851,156.53	100.00%	129,112,766.35	69.74	2.8624
Nov-06	1,771,485.99	100.00%	125,578,530.82	70.89	2.9066
Dec-06	1,763,998.64	100.00%	124,727,904.52	70.71	2.8668
Jan-07	1,821,716.04	100.00%	121,193,443.11	66.52	2.6955
Feb-07	1,563,163.04	100.00%	100,989,001.42	64.60	2.6315
Mar-07	1,761,818.15	100.00%	118,407,599.53	67.21	2.7129
Apr-07	1,508,169.52	100.00%	95,165,379.76	63.10	2.5290
May-07	1,618,007.19	100.00%	105,453,577.38	65.18	2.6093
Jun-07	1,499,930.80	100.00%	98,746,408.81	65.83	2.6665
Totals (7/06- 6/07)	19,548,276.05		1,318,880,154.35		

<u>Total Received Cost</u>	=	\$	1,318,880,154.35	=	\$	67.47
<u>Total Tons Received</u>			19,548,276.05			

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
Received Coal - Cost Per Ton Comparison  
July 2006 - June 2007  
Docket No. 2007-3-E

<u>Duke Energy Carolinas</u>				
<u>Month</u>	<u>Invoice Cost</u> <u>Per Ton</u>	<u>Freight Cost</u> <u>Per Ton</u>	<u>Total Cost</u> <u>Per Ton</u>	<u>Cost</u> <u>Per MBTU</u>
	\$	\$	\$	\$
Jul-06	47.04	26.57	73.61	3.0527
Aug-06	47.42	19.57	66.99	2.7759
Sep-06	44.86	21.05	65.91	2.7266
Oct-06	47.54	22.20	69.74	2.8624
Nov-06	49.84	21.05	70.89	2.9066
Dec-06	48.59	22.12	70.71	2.8668
Jan-07	47.22	19.31	66.53	2.6955
Feb-07	43.97	20.63	64.60	2.6315
Mar-07	47.24	19.97	67.21	2.7129
Apr-07	43.49	19.61	63.10	2.5290
May-07	46.03	19.15	65.18	2.6093
Jun-07	45.92	19.91	65.83	2.6665

Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.

<u>Month</u>	<u>Invoice Cost</u> <u>Per Ton</u>	<u>Freight Cost</u> <u>Per Ton</u>	<u>Total Cost</u> <u>Per Ton</u>	<u>Cost</u> <u>Per MBTU</u>
	\$	\$	\$	\$
Jul-06	49.90	15.94	65.84	2.6726
Aug-06	51.48	19.01	70.49	2.8319
Sep-06	53.41	19.51	72.92	2.9538
Oct-06	51.23	20.47	71.70	2.8872
Nov-06	51.19	20.68	71.87	2.9094
Dec-06	49.29	20.06	69.35	2.7942
Jan-07	57.44	19.73	77.17	3.1281
Feb-07	51.80	20.66	72.46	2.9205
Mar-07	52.53	19.35	71.88	2.8816
Apr-07	53.74	19.88	73.62	2.9656
May-07	53.98	18.17	72.15	2.8972
Jun-07	47.94	17.35	65.29	2.6319

Duke Energy Carolinas  
Received Coal - Cost Per Ton Comparison  
July 2006 - June 2007  
Docket No. 2007-3-E

South Carolina Electric & Gas Company

<u>Month</u>	<u>Invoice Cost</u> <u>Per Ton</u>	<u>Freight Cost</u> <u>Per Ton</u>	<u>Total Cost</u> <u>Per Ton</u>	<u>Cost</u> <u>Per MBTU</u>
	\$	\$	\$	\$
Jul-06	49.61	14.17	63.78	2.5398
Aug-06	49.17	14.80	63.97	2.5205
Sep-06	49.92	15.46	65.38	2.5918
Oct-06	49.23	15.72	64.95	2.5642
Nov-06	49.36	13.92	63.28	2.4963
Dec-06	47.40	13.84	61.24	2.4152
Jan-07	45.95	14.36	60.31	2.3849
Feb-07	55.66	12.20	67.86	2.6782
Mar-07	49.10	14.99	64.09	2.5169
Apr-07	48.58	12.90	61.48	2.4300
May-07	49.46	14.81	64.27	2.5200
Jun-07	51.21	12.37	63.58	2.5000

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
Detail of Nuclear Cost  
July 2006 - June 2007  
Docket No. 2007-3-E

<u>Month</u>	<u>Burn-up Cost</u>	<u>Disposal Cost</u>	<u>Total Nuclear Cost</u>
	\$	\$	\$
Jul-06	11,571,857	3,439,587	15,011,444
Aug-06	11,340,141	3,434,299	14,774,440
Sep-06	10,201,392	2,915,686	13,117,078
Oct-06	8,415,035	2,279,275	10,694,310
Nov-06	8,949,195	2,520,985	11,470,180
Dec-06	10,883,555	3,171,928	14,055,483
Jan-07	12,090,496	3,619,169	15,709,665
Feb-07	10,026,379	3,019,661	13,046,040
Mar-07	10,032,038	2,992,873	13,024,911
Apr-07	8,784,650	2,640,992	11,425,642
May-07	8,914,021	2,219,388	11,133,409
Jun-07	<u>12,640,633</u>	<u>3,410,146</u>	<u>16,050,779</u>
Total	<u><u>123,849,392</u></u>	<u><u>35,663,989</u></u>	<u><u>159,513,381</u></u>

**Note:** Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
Total Burned Cost (Fossil and Nuclear)  
July 2006 - June 2007  
Docket No. 2007-3-E

Month	Coal	Environmental (1)	#2 Oil	Gas	Nuclear	Total Burned Cost
	\$	\$	\$	\$	\$	\$
	%	%	%	%	%	%
Jul-06	119,007,875	1,279,739	1,529,717	7,305,818	15,011,444	144,134,593
Aug-06	126,066,829	1,351,460	989,001	10,188,770	14,774,440	153,370,500
Sep-06	89,667,862	987,282	1,713,777	3,583,528	13,117,078	109,069,527
Oct-06	98,882,288	1,015,653	1,424,111	1,209,403	10,694,310	113,225,765
Nov-06	97,747,705	895,218	1,647,486	1,007,759	11,470,180	112,768,348
Dec-06	91,756,237	926,042	1,401,596	626,335	14,055,483	108,765,693
Jan-07	90,831,580	853,059	2,762,251	1,140,061	15,709,665	111,296,616
Feb-07	113,420,315	1,482,262	1,860,171	509,616	13,046,040	130,318,404
Mar-07	96,502,022	1,499,193	1,265,373	89,541	13,024,911	112,381,040
Apr-07	93,662,773	1,914,717	1,525,411	240,225	11,425,642	108,768,768
May-07	113,663,134	2,090,322	984,940	1,450,825	11,133,409	129,322,630
Jun-07	109,650,089	2,611,508	1,079,206	2,700,250	16,050,779	132,091,832
Totals	1,240,858,709	16,906,455	18,183,040	30,052,131	159,513,381	1,465,513,716

(1) For this exhibit, the variable environmental costs (as adjusted by ORS) are included in fuel expenses as of May 3, 2007, the effective date of the "Base Load Review" Act.

SO2 Emission Allowance Expense has been included in fuel expenses before May 3, 2007

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
Details of Environmental Costs  
Fuel Adjustment Clause (2007-3-E) - Reagent Costs  
For the Period Ending September 30, 2007  
For the Actual Period: July 2006-June 2007

Audit Exhibit JRC - 5  
Page 1 of 5

<u>May</u>	<u>Per Filing</u>	<u>Exclude Invoice No. 9059810</u>	<u>Reclassify Correction of Invoice No. 90990857</u>	<u>Adjustment for Incorrect Sales &amp; Use Tax Percentage</u>	<u>Per ORS</u>
Reagents:					
Urea	172,725			(6,314)	166,411
Ammonia	675,700	(39,904)		(17,154)	618,642
Limestone	302,521				302,521
Total Reagents	1,150,946	(39,904)		(23,468)	1,087,574
<b>Total Reagents Expense</b>					
(DEC - As of May 4, 2007--See McManeus Ex. 7)		1,150,946	<b>ORS Adjustments</b>		
(ORS - As of May 3, 2007)			(133,538)		1,017,408

<u>June</u>					
Reagents:					
Urea	173,223			(3,381)	169,842
Correction for Inv. # 90990857			208,813	(14,237)	194,576
Corrected Urea	173,223		208,813	(17,618)	364,418
Ammonia	654,548			(12,450)	642,098
* Inventory Delta	126,834				126,834
Adjusted Ammonia	781,382			(12,450)	768,932
Limestone	410,120				410,120
Correction for Inv. # 90990857	208,813		(208,813)		0
Corrected Limestone	618,933		(208,813)		410,120
Total Reagents	1,573,538		0	(30,068)	1,543,470
* Ammonia Inventory Delta:					
Inventory Balance @ 03/31/07	525,428				525,428
Inventory Balance @ 06/30/07	398,594				398,594
Delta	126,834				126,834



Duke Energy Carolinas  
Details of Environmental Costs  
July 2006 - June 2007  
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MAY 2007

<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
	\$	\$	\$
(2) SO2 Emission Allowance Expense			
<b>NOTE:</b> Part (a) Not used in computation of Environmental Costs. It is only included in the Fuel Base Factor.			
(a) (DEC- First 3 days of May)	173,266	(57,755)	
(ORS- First 2 days of May)			115,511
<b>NOTE:</b> Part (b) IS used in the computation of Environmental Costs.			
(b) (DEC-As of May 4, 2007)	1,617,148	57,755	
(ORS- As of May 3, 2007)			1,674,903
Total	1,790,414		1,790,414

JUNE 2007

<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
(2) SO2 Emission Allowance Expense			
(DEC - As of May 4, 2007)	1,652,238	0	
(ORS - As of May 3, 2007)			1,652,238

Duke Energy Carolinas  
Details of Environmental Costs  
July 2006 - June 2007  
Docket No. 2007-3-E

MAY 2007			
<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
	\$	\$	\$
-19- (3) Gain On NOx Sales			
(DEC - As of May 4, 2007)	(717,500)	0	
(ORS - As of May 3, 2007)			(717,500)
JUNE 2007			
<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
(3) Gain On NOx Sales			
(DEC - As of May 4, 2007)	(584,200)	0	
(ORS - As of May 3, 2007)			(584,200)

Duke Energy Carolinas  
Details of Environmental Costs  
July 2006 - June 2007  
Docket No. 2007-3-E

MAY 2007

<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
	\$	\$	\$
(4) Environmental Costs (Emissions Allowances) Remaining & Removed in Intersystem Sales			
<b>NOTE:</b> Part (a) Not used in computation of Environmental Costs. It is only included in the Fuel Base Factor.			
(a) (DEC- First 3 days of May) (ORS- First 2 days of May)	(41,782)	13,927	(27,855)
<b>NOTE:</b> Part (b) IS used in the computation of Environmental Costs.			
(b) (DEC- As of May, 4 2007) (ORS- As of May 3, 2007)	(389,964)	(13,927)	(403,891)
Total	<u>(431,746)</u>		<u>(431,746)</u>

JUNE 2007

<u>Environmental Costs</u>	<u>DEC's Amount</u>	<u>ORS Adjustments</u>	<u>ORS As Adjusted</u>
(4) Environmental Costs (Emissions Allowances) Removed in Intersystem Sales			
(DEC - As of May 4, 2007) (ORS - As of May 3, 2007)	(1,092,031)	0	(1,092,031)

Duke Energy Carolinas  
Details of Environmental Costs  
July 2006 - June 2007  
Docket No. 2007-3-E

Environmental Costs Incurred	May-07 *	Jun-07 *	Estimate Jul-07	Estimate Aug-07	Estimate Sep-07	Total
Reagents Expense	1,017,408	1,543,470	2,218,000	2,240,000	1,795,000	8,813,878
Emission Allowance Expense	1,674,903	1,652,238	1,304,000	1,304,000	1,304,000	7,239,141
Environmental Costs Recovered in Intersystem Sales	(403,891)	(1,092,031)	(1,170,000)	(1,170,000)	(1,170,000)	(5,005,922)
Gain on NOx Sales	(717,500)	(584,200)	0	0	(2,000,000)	(3,301,700)
Net Environmental Costs	1,570,920	1,519,477	2,352,000	2,374,000	(71,000)	7,745,387
SC % of KWH Sales	26.43%	27.55%	27.46%	27.63%	27.61%	27.31948%
SC Environmental Costs Per ORS-Over/(Under) Recovery	(415,194)	(418,616)	(645,859)	(655,936)	19,603	(2,116,002)
SC Environmental Costs Billed [Increment/(Decrement)]	(658,073)	(602,652)	(871,531)	(923,164)	(881,680)	(4,137,500)
SC Environmental Costs Per ORS-Over/(Under) Recovery						(6,253,502)

\* As Adjusted by ORS

Duke Energy Carolinas  
Cost of Fuel  
July 2006 - June 2007  
Docket No. 2007-3-E

<u>Month</u>	<u>Total Cost of Fuel Burned</u>	<u>Purchased and Interchange Power Fuel Cost</u>	<u>Fuel Cost Recovered from Intersystem Sales</u>	<u>Total Fuel Cost</u>
	\$	\$	\$	\$
Jul-06	144,134,593	11,068,172	(9,602,041)	145,600,724
Aug-06	153,370,500	14,237,539	(7,645,507)	159,962,532
Sep-06	109,069,527	5,110,171	(9,683,003)	104,496,695
Oct-06	113,225,765	8,169,938	(6,498,816)	114,896,887
Nov-06	112,768,348	14,910,743	(5,307,071)	122,372,020
Dec-06	108,765,693	8,498,806	(6,852,597)	110,411,902
Jan-07	111,296,616	1,232,486	(16,634,301)	95,894,801
Feb-07	130,318,404	3,330,414	(28,040,554)	105,608,264
Mar-07	112,381,040	4,830,068	(25,845,537)	91,365,571
Apr-07	108,768,768	3,103,301	(18,597,923)	93,274,146
May-07	129,322,630	6,511,707	(3,754,812) *	132,079,525
Jun-07	132,091,832	4,368,547	(11,588,820) *	124,871,559
<b>Total</b>	<b>1,465,513,716</b>	<b>85,371,892</b>	<b>(150,050,982)</b>	<b>1,400,834,626</b>

\* For this exhibit, SO2 Emission Allowance Expenses associated with Intersystem Sales are through to May 3, 2007.

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
S.C. Retail Comparison of Fuel Revenues & Expenses  
July 2006 - September 2007  
Docket No. 2007-3-E

	ACTUAL							
	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07
Fossil Fuel (\$)	127,843,410	137,244,600	94,965,167	101,515,802	100,402,950	93,784,168	94,733,892	115,790,102
Emission Allowance/Environmental Costs (\$) (2)	1,279,739	1,351,460	987,282	1,015,653	895,218	926,042	853,059	1,482,262
Nuclear Fuel (\$)	15,011,444	14,774,440	13,117,078	10,694,310	11,470,180	14,055,483	15,709,665	13,046,040
Purchased & Interchange Power (\$) (3)	11,068,172	14,237,539	5,110,171	8,169,938	14,910,743	8,498,806	1,232,486	3,330,414
Sub-Total (\$)	155,202,765	167,608,039	114,179,698	121,395,703	127,679,091	117,264,499	112,529,102	133,648,818
Less: Fuel Cost Recovered through Intersystem Sales (\$) (4)	9,602,041	7,645,507	9,683,003	6,498,816	5,307,071	6,852,597	16,634,301	28,040,554
Total Fuel Costs (\$)	145,600,724	159,962,532	104,496,695	114,896,887	122,372,020	110,411,902	95,894,801	105,608,264
Total System KWH Sales Excluding Intersystem Sales (5)	7,319,976,504	7,794,892,517	7,380,471,224	5,971,704,484	6,037,431,994	6,264,805,330	6,521,026,352	6,901,194,266
\$/KWH Sales	0.019891	0.020521	0.014159	0.019240	0.020269	0.017624	0.014705	0.015303
Less: Base Sales (\$/KWH) (6)	0.015802	0.015802	0.015802	0.017760	0.017760	0.017760	0.017760	0.017760
Fuel Adjustment Per KWH (\$/KWH)	(0.004089)	(0.004719)	0.001643	(0.001480)	(0.002509)	0.000136	0.003055	0.002457
S.C. KWH Sales (000's)	2,038,725	2,169,427	2,017,839	1,647,460	1,671,874	1,705,410	1,795,176	1,894,719
Over/(Under) Recovery (\$)	(8,336,347)	(10,237,526)	3,315,309	(2,438,241)	(4,194,732)	231,936	5,484,263	4,655,325
Cumulative Over/(Under) Recovery - June 2006 (\$)	6,984,672	(1)						
Accounting Adjustments (\$)							866,926	
Cumulative Over/(Under) Recovery this Period (\$)	(1,351,675)	(11,589,201)	(8,273,892)	(10,712,133)	(14,906,865)	(14,674,929)	(8,323,740)	(3,668,415)

Please Note:

In Audit Exhibit JRC-7, ORS reflects Over-Recovery amounts without parentheses and reflects (Under)-Recovery amounts with parentheses.

\*Explanations of Footnotes (1) through (7) on Audit Exhibit JRC-7 are found on pages 5 through 11 in the testimony of Jacqueline R. Cherry and on pages 3 through 5 of Audit Exhibit JRC-7.

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
S.C. Retail Comparison of Fuel Revenues & Expenses  
July 2006 - September 2007

Audit Exhibit JRC-7  
Page 2 of 5

	-----ACTUAL-----				-----ESTIMATED-----		
	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Fossil Fuel (\$)	97,856,936	95,428,409	116,098,899	113,429,545	133,742,000	135,566,000	107,288,000
Emission Allowance/Environmental Costs (\$) (2)	1,499,193	1,914,717	115,511	-	-	-	-
Nuclear Fuel (\$)	13,024,911	11,425,642	11,133,409	16,050,779	16,155,000	16,155,000	15,447,000
Purchased & Interchange Power (\$) (3)	4,830,068	3,103,301	6,511,707	4,368,547	4,955,000	4,955,000	4,955,000
Sub-Total (\$)	117,211,108	111,872,069	133,859,526	133,848,871	154,852,000	156,676,000	127,690,000
Less: Fuel Cost Recovered through Intersystem Sales (\$) (4)	25,845,537	18,597,923	3,754,812	11,588,820	13,821,000	13,821,000	13,821,000
Total Fuel Costs (\$)	91,365,571	93,274,146	130,104,714	122,260,051	141,031,000	142,855,000	113,869,000
Total System KWH Sales Excluding Intersystem Sales (5)	6,085,837,374	6,233,642,713	6,234,025,736	6,822,509,672	7,435,269,000	7,823,752,000	7,478,860,000
\$/KWH Sales	0.015013	0.014963	0.020870	0.017920	0.018968	0.018259	0.015225
Less: Base Sales (\$/KWH) (6)	0.017760	0.017760	0.018159	0.018187	0.018187	0.018187	0.018187
Fuel Adjustment Per KWH (\$/KWH)	0.002747	0.002797	(0.002711)	0.000267	(0.000781)	(0.000072)	0.002962
S.C. KWH Sales (000's)	1,614,666	1,727,296	1,647,441	1,879,747	2,041,993	2,161,977	2,064,824
Over/(Under) Recovery (\$)	4,435,488	4,831,247	(4,466,213)	501,892	(1,594,797)	(155,662)	6,116,009
Cumulative Over/(Under) Recovery - 02/07 (p.1 of 5) (\$)	(3,668,415)						
Accounting Adjustments (\$)	1,517						
ORS Adjustment to DEC's Accounting Adjustment (\$) (7)	(3,034)						
Cumulative Over/(Under) Recovery this Period (\$)	765,556	5,596,803	1,130,590	1,632,482	37,685	(117,977)	5,998,032

**Please Note:**

In Audit Exhibit JRC-7, ORS reflects Over-Recovery amounts without parentheses and reflects (Under)-Recovery amounts with parentheses.

\*Explanations of Footnotes (1) through (7) on Audit Exhibit JRC-7 are found on pages 5 through 11 in the testimony of Jacqueline R. Cherry and on pages 3 through 5 of Audit Exhibit JRC-7.

Note: Exhibit prepared by the ORS Audit Staff.

Duke Energy Carolinas  
ORS Adjustments (Total System Basis)  
For the Actual Review Period of July 2006 - June 2007  
Docket No. 2007-3-E

<u>Description</u>	<u>DEC's Filing</u>	<u>Adjustments (Differences)</u>	<u>Per ORS</u>
	\$	\$	\$
(1) The cumulative ORS over-recovery balance brought forward from 6/06 is \$6,984,672. In its testimony, DEC reflects its per books over-recovery balance of \$10,861,000 as of 6/06 and a 9/06 under-recovery adjustment of \$3,877,000. These two figures together true-up, on an exact basis, to the ORS beginning balance.	10,861,289 (3,876,617) <u>6,984,672</u>		<u>6,984,672</u>
(2) <u>Emission Allowance/Environmental Costs</u> -- (a) For 5/07, ORS will reflect 2 days of costs inclusive with the other fuel costs instead of 3 days (per DEC). The "Base Load Review" Act became effective on May 3, 2007. Emission Allowance Expenses are shown with other Environmental Costs separately as of May 3, 2007. DEC based its 3-day calculation on omitting 3 days of all the Reagent Costs. Since the other Reagent Costs were not included in fuel costs before 5/3/07, SO2 Emission Allowance was the only cost that needed pro-rating on DEC McManeus's Exhibits 1 and 5.	2,223,860 x 3 /31 = <u>215,212</u>		1,790,414 x 2 /31 = <u>115,511</u>
Emission Allowance Only--ORS vs McManeus's Exhibit 7 (2 vs.3) (For Fuel Factor)	1,790,414 x 3 /31 = <u>173,266</u>	(57,755)	1,790,414 x 2 /31 = <u>115,511</u>
ORS vs. McManeus's Exhibit 7 (29 Days vs. 28 Days) (For Environmental Cost Factor)	<u>1,617,148</u>	<u>57,755</u>	<u>1,674,903</u>
(b) For 6/07, ORS and DEC will reflect Emission Allowance Expenses entirely in the Environmental Cost Factor area. (For Environmental Cost Factor)	<u>1,652,238</u>	<u>0</u>	<u>1,652,238</u>
(c) Audit Exhibit JRC-5, entitled "Details of Environmental Costs" provides details on the adjustments to Reagent Costs.			
(3) <u>Purchased Power Expenses</u> -- (a) For 7/06 and 8/06, DEC reflected incorrect figures per its Native Load info applicable to purchases using the S.C. Avoided Cost Fuel Proxy. The company revised the figures during ORS Staff's audit. Also, for 7/06 ORS reduced the computed purchases applicable to the S.C. Fuel Proxy by \$3,227 for a miscalculation in costs. The ORS audit report reflects the updated figures for 7/06 and 8/06, as follows for Purchased Power Expense:			
Jul-06	11,202,189 0	(130,790) (3,227)	11,071,399 (3,227)
Total As Adj.-- July 2006	<u>11,202,189</u>	<u>(134,017)</u>	<u>11,068,172</u>
Aug-06	14,406,241	(168,702)	14,237,539
Total As Adj. --July and August 2006	<u>25,608,430</u>	<u>(302,719)</u>	<u>25,305,711</u>



(b) For 9/06 thru 6/07, DEC continued to apply the S.C. Fuel Statute to its examined economic purchases. DEC increased the Purchased Power Costs of \$ 38,424,075 for 9/06-6/07, on a total system—native load basis, by \$21,642,106. This resulted in a total of \$60,066,181 for those months.

Sept-06 -- Jun-07	Total As Adj.	60,066,181	0	60,066,181
<b>As Adj. Purchased Power—Summarize: (3a) and (3b)</b>		85,674,611	(302,719)	85,371,892

(4) **Intersystem Sales**—(a) For 8/06, DEC did not update its Transmission Losses for revised info. This error effects Sales since Fuel in Transmission Losses are included in the Sales calculations. The correction is as follows:

Fuel in Transmission Losses	87,975	(34,077)	53,898
Fuel in Transmission Losses—Emission Allowances			
53,898 x 14.20% (Emiss. Allow. %)=	12,493	(4,839)	7,654
<b>Total—Adjusted—Fuel in Transmission Losses</b>	<u>100,468</u>	<u>(38,916)</u>	<u>61,552</u>
Fuel from Intersystem Sales	7,583,955	0	7,583,955
Plus: Adjusted—Fuel in Transmission Losses	100,468	(38,916)	61,552
<b>Total—Adjusted—Fuel from Intersystem Sales</b>	<u>7,684,423</u>	<u>(38,916)</u>	<u>7,645,507</u>

(b) For 3/07 thru 6/07, DEC included some Nantahala (NP&L) Intersystem Sales that should have been excluded. The applicable KWH's were correctly excluded already but the dollars were not. The total amount of the adjustment is (\$429,938). The adjustment details are shown below per month with Adj. (4c) and (4d).

(c) For 4/07 thru 6/07, DEC calculated the Emission Allowances associated with Fuel in Transmission Losses incorrectly. This error effects Sales since Fuel in Transmission Losses are included in the Sales calculations. The adjustment details are shown below per month with Adj. (4b) and (4d). The total amount of the adjustment is (\$909,615).

(d) For 5/07 and 6/07, as mentioned in Adjs. (2a) and (2b) above, the S.C. "Base Load Review" Act became effective as of May 3, 2007. Since there are SO2 Emission Allowances included in Intersystem Sales, any allowances as of May 3, 2007 are computed in the Environmental Cost Factor. This adjustment excludes 29 days of allowances from the Base Fuel Factor computation. The adjustment details are shown below per month with Adj. (4b) and (4c).

<b>Mar-07 Fuel from Intersystem Sales (4b)</b>	25,900,267	(54,730)	25,845,537
<b>Apr-07 Fuel in Transmission Losses (No Adjustment)</b>	41,092	0	41,092
Fuel in Transmission Losses—Emission Allowances (4c)			
41,092 x 8.90% (Emiss. Allow. %)=	365,718	(362,061)	3,657
<b>Total—Adjusted—Fuel in Transmission Losses</b>	<u>406,810</u>	<u>(362,061)</u>	<u>44,749</u>
Fuel from Intersystem Sales (4b)	18,700,473	(147,299)	18,553,174
Plus: Adjusted—Fuel in Transmission Losses	406,810	(362,061)	44,749
<b>Total—Adjusted—Fuel from Intersystem Sales</b>	<u>19,107,283</u>	<u>(509,360)</u>	<u>18,597,923</u>
<b>May-07 Fuel in Transmission Losses (No Adjustment)</b>	32,924	0	32,924
Fuel in Transmission Losses—Emission Allowances (4c)			
32,924 x 8.20% (Emiss. Allow. %)=	269,977	(267,277)	2,700
<b>Total—Adjusted—Fuel in Transmission Losses</b>	<u>302,901</u>	<u>(267,277)</u>	<u>35,624</u>
Fuel from Intersystem Sales (4b)	4,233,530	(110,451)	4,123,079
Plus: Adjusted—Fuel in Transmission Losses	302,901	(267,277)	35,624
<b>Total—Adjusted—Fuel from Intersystem Sales</b>	<u>4,536,431</u>	<u>(377,728)</u>	<u>4,158,703</u>
Total—Adjusted—Fuel from Intersystem Sales	4,536,431	(377,728)	4,158,703
Emission Allow.Costs Removed from Sales (ORS-29 Days) (4d)	(389,964)	(13,927)	(403,891)
<b>Total—Adjusted—Fuel from Intersystem Sales</b>	<u>4,146,467</u>	<u>(391,655)</u>	<u>3,754,812</u>

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Jun-07 Fuel in Transmission Losses (No Adjustment)	33,307	0	33,307
Fuel in Transmission Losses--Emission Allowances (4c)			
33,307 x 8.50% (Emiss. Allow. %)=	283,108	(280,277)	2,831
Total--Adjusted--Fuel in Transmission Losses	<u>316,415</u>	<u>(280,277)</u>	<u>36,138</u>
Fuel from Intersystem Sales (4b)	12,762,171	(117,458)	12,644,713
Plus: Adjusted--Fuel in Transmission Losses	316,415	(280,277)	36,138
Total--Adjusted--Fuel from Intersystem Sales	<u>13,078,586</u>	<u>(397,735)</u>	<u>12,680,851</u>
Total--Adjusted--Fuel from Intersystem Sales	13,078,586	(397,735)	12,680,851
Entire Emission Allow. Costs Removed from Sales (4d)	(1,092,031)	0	(1,092,031)
Total--Adjusted--Fuel from Intersystem Sales	<u>11,986,555</u>	<u>(397,735)</u>	<u>11,588,820</u>

**Summarize:**

(4b) (\$54,730) + (\$147,299) + (\$110,451) + (\$117,458) = (\$429,938)

(4c) (\$362,061) + (\$267,277) + (\$280,277) = (\$909,615)

(4d) (\$13,927)

(5) For 5/07, DEC miscalculated a portion of its MWH's applicable to Intersystem Sales that reduce Total System Sales. The error resulted in an increase to System Sales. Therefore, Total System Sales were corrected as follows:

Total System Sales (KWH's)	<u>6,233,985,618</u>	<u>40,118</u>	<u>6,234,025,736</u>
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(6) For 5/07 through 9/07, per DEC the effect of the exclusion of the SO2 Emission Allowances, from expenses and off-system sales, on the current review period's 1.7760 ¢/KWH (Billed) Base Fuel Factor increases the factor to 1.8187 ¢/KWH. This 1.8187 ¢/KWH reflects what the current factor would be without the net Emission Allowances portion in off-system sales. This produces a decrement applicable to SO2 Emission Allowances of 0.0427 ¢/KWH. ORS takes no exception to this adjusted factor.

For 5/07, ORS reflects the 1.8187 ¢/KWH for 29 days since Emission Allowances were included in the Base Fuel Factor for 2 days.

1.8187 less (0.0427x3/31) =	1.8187 less (0.0427x2/31) =
<u>1.8146</u>	<u>1.8159</u>

(7) For 3/07, DEC booked a correcting journal entry to the Deferred Unbilled Revenue Account (Account # 456.53) as an over-recovery for \$1,517. The adjustment was to correct an error in the 1/07 S.C. KWH Sales. The booked 1/07 over-recovery entry was reduced from the correction. The adjusting entry should have been an under-recovery entry. ORS's adjustment is as follows (S.C. Jurisdictional Basis):

ORS's Under-Recovery is shown in Parentheses	<u>1,517</u>	<u>(3,034)</u>	<u>(1,517)</u>
Net effect will be an Under-Recovery Adjustment			